

B&W Bowers & Wilkins

800 Series

800D	803S
801D	804S
802D	805S
803D	SCMS
HTM1D	HTM3S
HTM2D	HTM4S
	DS8



SPINE

B&W Bowers & Wilkins

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**Diamond
 At Work™**

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Owner details

Title, first name, surname _____

Address _____

Town, postcode, country _____

e-mail address _____

Product details

Model _____

Serial number _____

Date of purchase _____

Dealer details

Dealer name _____

Address _____

Town, postcode, country _____

e-mail address _____

Dealer stamp

Figure 1

	800D	801D	802D	803D	803S	804S	805S	SCMS	HTM1D	HTM2D	HTM3S	HTM4S	DS8S
	OPTION FP22359	OPTION FP22359	OPTION FP22359						4				
				4	4	4							
							4			4	4	4	4
	●	●	●	●	●	●	●	●	●	●	●	●	●
								●					
	●	●	●	●	●	●	●	●	●	●	●	●	
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Figure 2

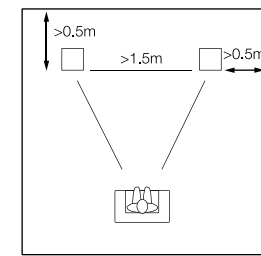


Figure 3

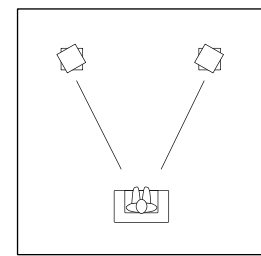


Figure 5

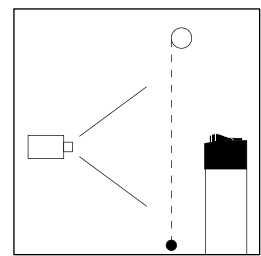


Figure 4

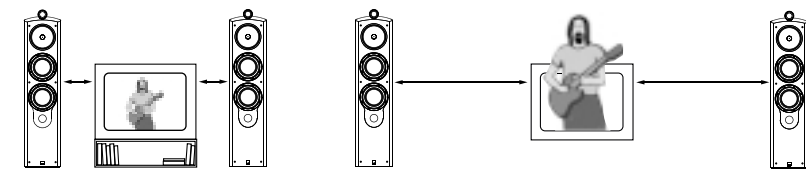


Figure 6

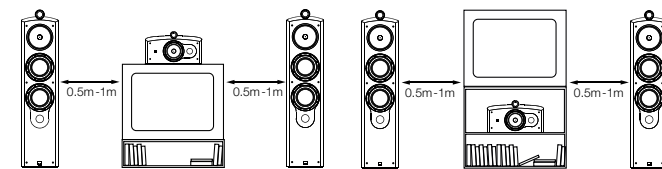


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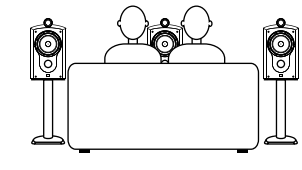


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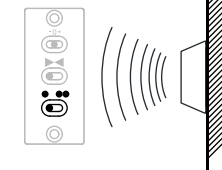


Figure 9

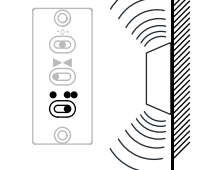


Figure 10

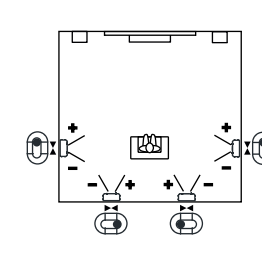


Figure 11

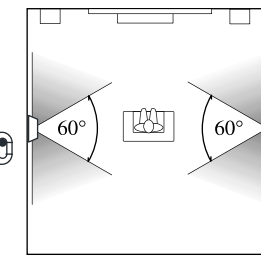


Figure 12

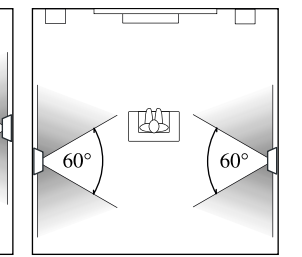


Figure 13

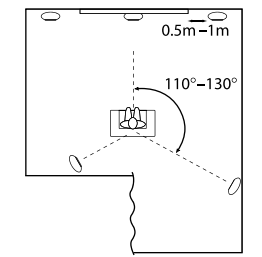


Figure 14

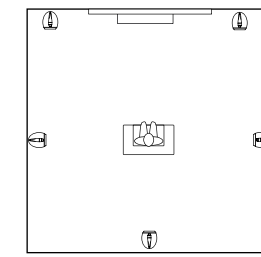


Figure 15

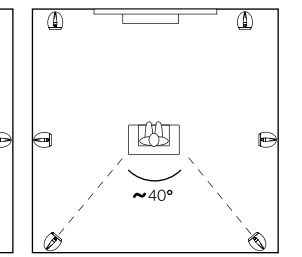


Figure 16

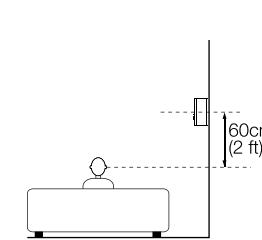


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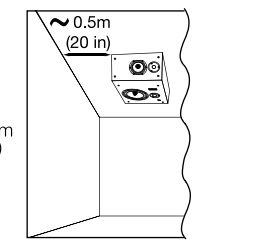


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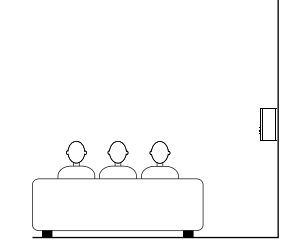


Figure 19

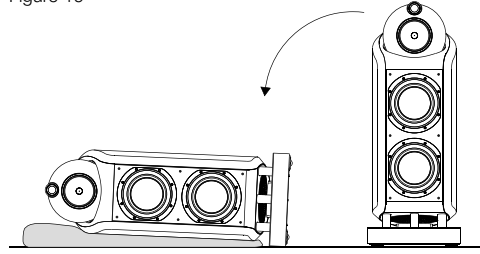


Figure 20

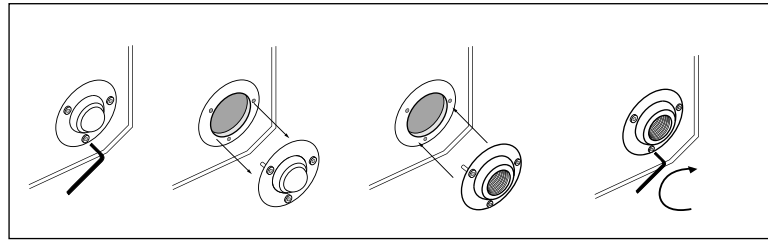


Figure 21

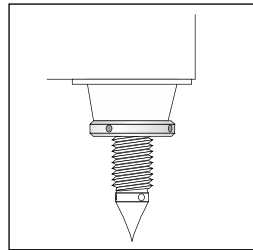


Figure 22

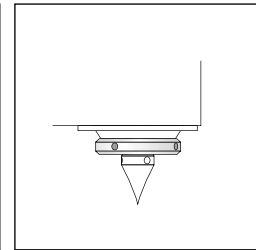


Figure 23

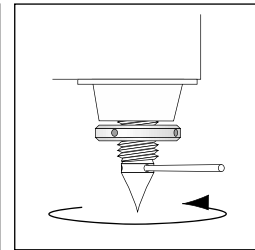


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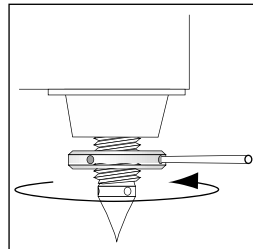


Figure 25a

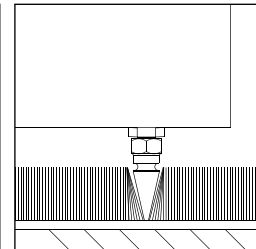


Figure 25b

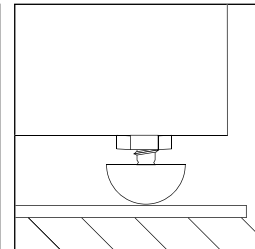


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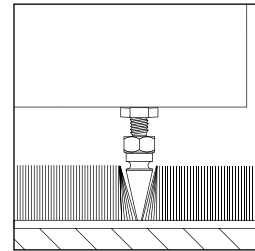


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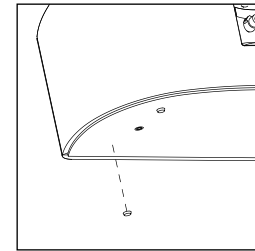


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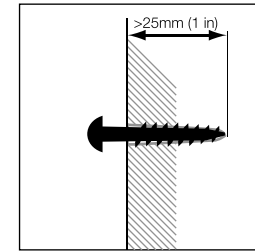


Figure 29

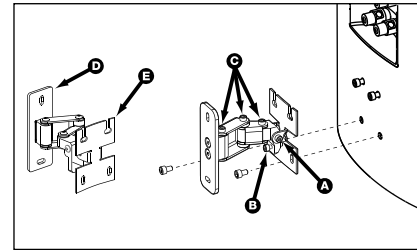


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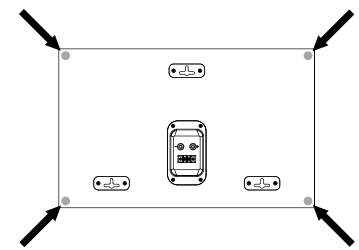


Figure 31

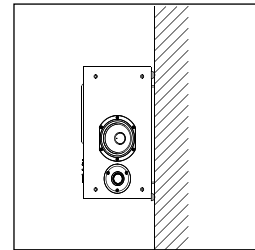


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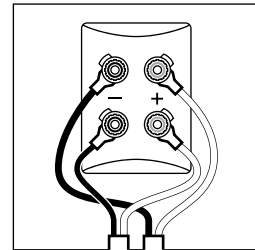


Figure 33

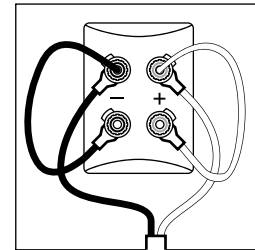


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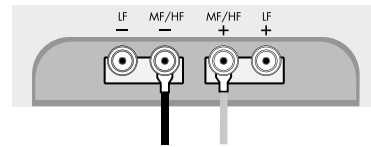


Figure 35

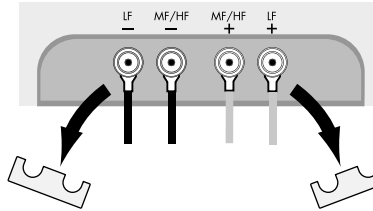


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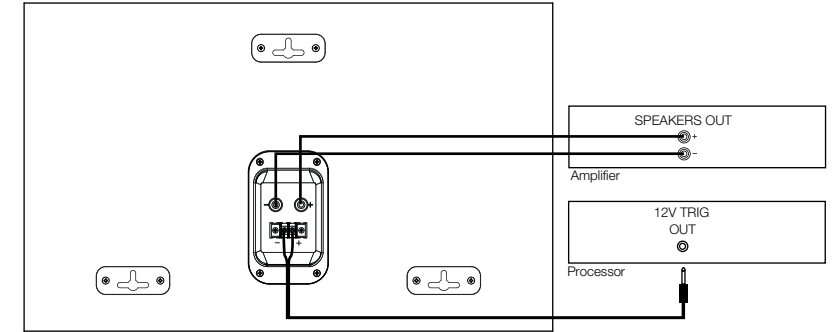


Figure 37

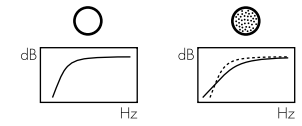
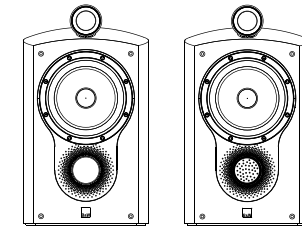


Figure 38

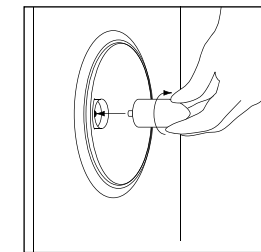
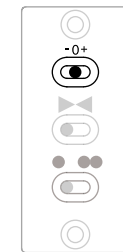


Figure 39



English

Limited Warranty

Dear customer,

Welcome to B&W.

This product has been designed and manufactured to the highest quality standards. However, if something does go wrong with this product, B&W Loudspeakers and its national distributors warrant free of charge labour (exclusion may apply) and replacement parts in any country served by an official B&W distributor.

This limited warranty is valid for a period of five years from the date of purchase or two years for electronics including amplified loudspeakers.

Terms and Conditions

- 1 The warranty is limited to the repair of the equipment. Neither transportation, nor any other costs, nor any risk for removal, transportation and installation of products is covered by this warranty.
- 2 This warranty is only valid for the original owner. It is not transferable.
- 3 This warranty will not be applicable in cases other than defects in materials and/or workmanship at the time of purchase and will not be applicable:
 - a for damages caused by incorrect installation, connection or packing,
 - b for damages caused by any use other than correct use described in the user manual, negligence, modifications, or use of parts that are not made or authorised by B&W,
 - c for damages caused by faulty or unsuitable ancillary equipment,
 - d for damages caused by accidents, lightning, water, fire heat, war, public disturbances or any other cause beyond the reasonable control of B&W and its appointed distributors,
 - e for products whose serial number has been altered, deleted, removed or made illegible,
 - f if repairs or modifications have been executed by an unauthorised person.
- 4 This guarantee complements any national/regional law obligations of dealers or national distributors and does not affect your statutory rights as a customer.

How to claim repairs under warranty

Should service be required, please follow the following procedure:

- 1 If the equipment is being used in the country of purchase, you should contact the B&W authorised dealer from whom the equipment was purchased.
- 2 If the equipment is being used outside the country of purchase, you should contact B&W national distributor in the country of residence who will advise where the equipment can be serviced. You can call B&W in the UK or visit our web site to get the contact details of your local distributor.

To validate your warranty, you will need to produce this warranty booklet completed and stamped by your dealer on the date of purchase. Alternatively, you will need the original sales invoice or other proof of ownership and date of purchase.

Owner's manual

Introduction

Thank you for choosing Bowers & Wilkins.

At B&W, we have always followed John Bowers' original philosophy of combining the art and science of acoustic design to create simply a better product, the objective always being to get the maximum amount of enjoyment and fulfilment from listening to music or watching movies.

The original Nautilus 800 Series contained a raft of new technologies that propelled it to being probably the best selling high-end speaker range in the world.

Since then, our team of research and development engineers have been striving to improve performance still further. Here is a short summary of what you will find new to this Series.

Bass cones throughout now feature a sandwich construction of carbon fibre skins bonded to a Rohacell foam core. Rigid diaphragms are best for reproducing bass frequencies and this new construction allows us to thicken the cone section, without suffering increased mass. The extra thickness makes the cone a more effective barrier to any residual sound generated inside the cabinet, giving tremendous dynamics and timing to the bass, with the secondary effect of cleaning up the midrange.

The FST midrange drive unit receives a new chassis – stronger, yet maintaining the maximum open area behind the

diaphragm to minimise reflective obstruction and allow the free flow of air.

The response of all B&W tweeters extends well into the ultrasonic region – important to realise the potential of SACD and DVD-A recordings. Now, the top models in the Series feature diamond dome tweeters. They're difficult and expensive to manufacture, but they take the response all the way to 80kHz in a smooth manner, superior to most so-called supertweeters.

Crossover design – getting the signal to the drivers with the minimum of degradation and blending them seamlessly together – has long been regarded as something of a black art. For this Series, our engineers have taken a sideways look at some of the traditionally held views of filter design and bent the rules a little. The result is imaging with unsurpassed perspective and stability.

These are speakers of the highest calibre and it's worth taking care with the set up of your system, so please take time to study this manual. Further information can be found in the FAQ and Technology sections of our web site www.bwspeakers.com.

How to use the manual

This manual covers all the passive speakers in the 800 Series. Even if some of the information does not immediately concern you, having it all in one place will help you in the choice of extra models you may require to expand your system at a later date.

Each of the sections carries an identification number and you will be guided to the relevant sections by navigation instructions, marked with an → arrow. Some text, applicable to only certain models, is indicated by a vertical line to the left.

Topic	→ Go to
Check the contents	1
Positioning your speakers	2
Mounting your speakers	3
Connecting your speakers	4
Fine tuning	5
Running-in period	6
Ancillary equipment	7
Aftercare	8

1 CHECK THE CONTENTS

Different accessories are packed according to model. Use the chart of figure 1 to check the contents for your particular model.

Contact your dealer if there are any missing items.

2 POSITIONING

Stray magnetic fields

If you are using speakers in a home theatre set-up and you are using a CRT screen (a traditional tube television or back projector), make sure the picture is not going to be distorted by stray magnetic fields from the drive unit motor systems. The following dedicated centre speakers are magnetically shielded because their application requires them to be placed right next to the screen:

HTM1D
HTM2D
HTM3S
HTM4S

All other speakers in the Series should be placed at least 0.5m (20-in) from such screens. Some television brands are particularly sensitive to magnetic fields and may require extra spacing. Plasma and LCD screens are not affected and front projectors are usually well away from the speakers anyway.

Application	→ Go to
Front left and right	2.1
Front centre	2.2
Surround	2.3

2.1 FRONT LEFT AND RIGHT

If you're only interested in audio and not movies, space the speakers apart approximately the same distance as you sit from them. This means that the included angle is about 60°. This applies whether or not you are using a centre speaker.

Apart from the dedicated on-wall model SCMS, the balance of the speaker is more natural if the speakers are at least 0.5, (20-in) from the rear wall. This also helps to improve the impression of perspective. (figure 2)

If you are only concerned with 2-channel audio, having the speakers further apart can lead to what is known as the hole-in-the-middle effect, where it's difficult to generate a stable phantom central image. If you have a centre speaker, you can space the left and right speakers further apart. All that happens is that the image widens. It's just like being closer to the performance.

If you have to space the speakers further apart because of domestic constraints, the central image can often be improved if you toe the speakers in towards the centre of the listening area. This can also

help the perception of the central image for any listeners sitting away from the centre line of the installation. (figure 3)

If you are also using the speakers for movies, you should try to match the audio image to the size of the screen. That generally means that the speakers should be closer together. A good starting point is to put the speakers about 0.5m (20-in) from the edges of the screen. (figure 4)

Bookshelf or on-wall speakers should be placed at a height that brings the tweeters approximately to ear level. In the vertical plane, the dispersion narrows in the crossover region between the midrange and tweeter drive units, when both units are working together. To preserve the optimum sound balance, try to keep within $\pm 5^\circ$ of this.

Floor-standing speakers have the angle of their optimum listening window adjusted for the height of the speakers and the typical range of ear height of seated listeners.

→ Go to section 3.

2.2 FRONT CENTRE

If you have an acoustically transparent screen, place the speaker behind the centre of the screen. Angle it towards the listeners if the tweeter is more than 5° from ear height. (figure 5)

If you have a normal screen, place the speaker immediately above or below the screen, whichever is nearest ear height. Angle it towards the listeners if the tweeter is more than 5° from ear height. A stand with tilt adjustment is available for the HTM2D, HTM2S and HTM4S. Consult your dealer for details. (figure 6)

If you are just listening to audio, place the speakers centrally and mount bookshelf or wall mount speakers with the tweeters at ear height. (figure 7)

→ Go to section 3.

2.3 SURROUND

Surround speakers generally fall into two main types – those that one might describe as 'normal' speakers – so-called monopoles, where the sound comes from a set of drive units mounted on the front of the enclosure – and those that give a more diffuse sound field, such as dipoles. Each type has its advantages.

Most multi-channel music is recorded with home entertainment in mind and is monitored using monopole surround speakers, whatever the multi-channel recording format. This enables better location of side and rear images,

although the formation of such images is never quite as precise as it is between the front speakers.

Most films are originally balanced for cinemas, where a large number of speakers spread around the auditorium are used to create the surround sound field. In that case there are more surround speakers than there are discrete channels of information and a less precise image is created that gives an all-enveloping effect. Dipoles and similar diffuse speakers are better at recreating this type of sound field in the home, but using fewer speakers to do it. Image positioning with these types of speaker is never as precise as it can be with monopoles. However, they do have the advantage of making it easier to balance the system for a larger listening area.

You may well receive conflicting advice from different sources on the best type of surround speaker to use. The truth is that there is no one perfect solution for all situations and the final choice for any given application will be influenced by several criteria, some of which may have a degree of conflict.

DS8S only

Within the 800 series, the DS8S is the only speaker to offer dipole operation. In fact, this specialist surround speaker has the advantage of offering a choice of both monopole and dipole operation, either via a switch located on the front baffle, behind the removable grille, or remotely, using a 12V trigger from the surround processor. You may therefore choose whichever type of operation best suits the conditions of the listening room, the size of audience and the type of programme being played. Indeed, you may even change the characteristic for different types of programme and, as the total energy into the room is the same in both modes, no recalibration of the installation is necessary when switching between them.

In monopole mode, only the two drive units on the front face operate. In dipole mode, the front tweeter is disconnected; the side firing drivers are brought into operation and the crossover frequency to the bass unit is lowered. The drive units on opposing sides are connected out of phase with one another, which creates a wedge-shaped null zone, approximately 60° wide, at right angles to the wall. If the listeners sit within this zone, they become less aware of the location of the speakers and hear more reflected sound; hence the diffuse nature of the sound field.

Use the bottom switch on the front baffle when selecting between monopole and dipole modes. In the • position, the speaker defaults to monopole. (figure 8)

However, if a 12V signal is applied to the trigger input, internal relays switch to dipole mode. In the •• position, the speaker is always in dipole mode, whatever the trigger signal. (figure 9)

Set the direction of the positive and negative dipole lobes using the centre toggle switch marked ►► on the front baffle. The stem of the switch points in the direction of the positive lobe.

For the smoothest panning of sounds between all the speakers in the installation, side speakers for all applications and rear speakers for 6.1 and 7.1 applications should have the polarity of the lobes set according to figure 10.

Application	→ Go to
5.1 channel surround	2.4
6.1 and 7.1 channel side	2.5
6.1 channel rear	2.6
7.1 channel rear	2.7

2.4 5.1 CHANNEL SURROUND

DS8S only

If you are using the DS8S in dipole mode only, place the speakers on the side walls approximately 60cm (2 ft) above ear height and in line with the centre of the listening area. (figure 11)

If you are using the DS8S and switching between dipole and monopole modes for different applications, place the speakers on the side walls approximately 60cm (2 ft) above ear height and slightly behind the centre of the listening area, keeping the listeners within the 60° wide null zone. (figure 12)

All models except DS8S

Place the speakers approximately 120° round from front centre. The shape of the room will dictate whether they are placed on a side or rear wall. (figure 13)

→ Go to section 2.8

2.5 6.1 AND 7.1 CHANNEL SIDE

Place the speakers to the side, in line with the centre of the listening area. (figures 14 & 15)

→ Go to section 2.8

2.6 6.1 CHANNEL REAR

The rear channel of 6.1 EX recordings may be reproduced by a single speaker

placed directly behind the centre of the listening area. (figure 14)

→ Go to section 2.8

2.7 7.1 CHANNEL REAR

These recommendations may also be used for a 6.1 channel system using two speakers at the rear, wired in parallel to the same channel.

Place two speakers behind the listening area to make an angle of approximately 40° to the centre of the listening area. (figure 15)

→ Continue to section 2.8

2.8 SURROUND SPEAKER HEIGHT

If you use the system for movies, place the speakers approximately 60cm (2 ft) above ear height. (figure 16)

This is also the preferred height for the dipole mode of the DS8S in all applications, although it may also be mounted on the ceiling. Try to keep it around 0.5m (20 in) from the side wall. (figure 17)

For all other models, if you are listening to audio only and there are only one or two listeners, mount bookshelf speakers with the tweeters approximately at ear height.

If there are more listeners, raise the speakers just above head height to avoid obstructing the sound to any listener. (figure 18)

→ Continue to section 3.

3 MOUNTING

Model	→ Go to
800D/801D/802D	3.1
HTM1D	3.2
803D/803S/804S	3.4
805S/HTM2D/HTM3S/HTM4S	3.5
SCMS	3.6
DS8S	3.7

3.1 800D/801D/802D

On delivery, the speakers are fitted with roller glides to aid movement. Because of the extreme weight of these speakers, the rollers can cause indentation of wooden and other vulnerable floor surfaces. You should therefore take steps to protect such surfaces by using an intermediate layer such as floor tiles or thick felt. The latter will allow you to glide the speakers over smooth surfaces if you push the cabinet low down.

Bass performance may be enhanced by using the optional adjustable feet. These are produced separately in a pack of 4 (800 Series Floor Spike Kit, part no. FP22359). They have 40mm (1.6 in) of vertical adjustment, allowing a certain degree of tilt if desired, and are reversible, having a spike for carpets on one end and a clear rubber pad for vulnerable surfaces on the other.

To fit the optional feet, first lay the speaker down on its side (to avoid possible damage to terminals or drive unit diaphragms). (figure 19)

Due to the weight of the speaker, this should be done by at least two people. Remove rings and other jewellery to avoid scratching the surfaces and provide a soft surface such as a piece of carpet that the speaker can lie on. You may also like to wear non-slip gloves.

Do not be afraid to handle the speaker by lifting on the side of the spherical midrange 'head'. It is a little unnerving, because the head is flexibly mounted on the bass cabinet, but it does come to a stop and is strong enough to take the weight of the speaker.

Using the Torx key supplied with the kit, remove the 4 roller glides from the plinth of the speaker and replace them with the feet. (figure 20)

Adjust the feet as described in section 3.3.

→ Go to section 3.3.

3.2 HTM1D

Supplied with the speaker are 4 adjustable feet and screws for fitting them to the cabinet. They have 40mm (1.6 in) of vertical adjustment, allowing tilt up to 8° if desired. This is useful, as the most common situation will be for the speaker to be mounted on the floor under a large screen.

The feet are reversible, having a spike for carpets on one end and a clear rubber pad for vulnerable surfaces on the other.

Fit the feet during the unpacking procedure when the underside of the cabinet is exposed. This allows the inner packing pieces to remain in place against the underside of the cabinet as protection whilst the speaker is rolled over into the upright position, and be easily removed afterwards.

First read section 3.3 to familiarise yourself with the design. If the speaker is to be tilted back, fit the front threaded bosses with the cones facing outwards (figure 21) and the rear ones with the cones facing inwards (figure 22). This is as illustrated on the separate sheet placed in the carton.

Screw in the feet with locking ring attached, with either the spikes or rubber tips outermost, according to the type of floor surface. Leave the tips of the feet protruding beyond the inner packing pieces for clearance when the speaker is upright.

After rolling the cabinet onto its feet and lifting off the carton, remove the inner packing and adjust the feet as described in section 3.3

→ Continue to section 3.3.

3.3 ADJUSTING THE FEET

The threaded bosses that hold the feet have a large conical shape on one side of the flange. For maximum height, fit the bosses with the conical shape towards the floor. (figure 21) For minimum height, have them pointing into the speaker. (figure 22)

Screw in the feet close to where you think the final adjustment will be, with the spikes or the rubber ends outermost as appropriate to the floor surface. If you do not intend to tilt the speakers, orient the bosses with the cones inwards and leave just enough thread exposed to fit the locking rings. Fit, but do not tighten the locking rings.

Stand the speaker upright and adjust the feet using the metal bar provided to give the amount of tilt required and to take up any rocking. (figure 23)

Finally, tighten the locking ring against the boss, again using the metal bar. (figure 24)

→ Go to section 4.

3.4 803D/803S/804S

For best performance, screw the adjustable feet into the threaded inserts in the base of the speaker as appropriate – spikes for carpets or clear rubber for wooden and other vulnerable floors. (figure 25)

Lay the speaker down on its side (to avoid possible damage to terminals or drive unit diaphragms). Remove rings and other jewellery to avoid scratching the surfaces and provide a soft surface such as a piece of carpet that the speaker can lie on.

Screw the lock nuts fully onto the feet and the feet fully into the base. (figure 25)

Stand the speaker upright and adjust the feet to take up any rocking.

Finally, tighten the locking rings against the threaded inserts. (figure 26)

→ Go to section 4.

3.5 805S/HTM2D/HTM3S/HTM4S

These systems should be mounted on a firm shelf or stand that allows the sound to be properly directed to the listeners.

For the 805S, we recommend the use of the FS-N805 stand that supports the speaker at the correct listening height.

For the HTM2D, HTM3S and HTM4S, the FS-NHTM stand supports these centre speakers low down so that the top of the speaker is no higher than 60cm (2 ft) from the floor, commensurate with positioning them below a large screen. The stand allows the speaker to be tilted back by 0°, 4° or 8°.

Follow the instructions supplied with the stand in each case.

When mounting the speakers on a bookshelf, stick the 4 self-adhesive rubber feet to the base of the speaker. (figure 27)

→ Go to section 4.

3.6 SCMS

The speaker is designed to be fixed to a wall and is supplied with a bracket that allows adjustment of both horizontal and vertical angles. (figure 29) The bracket should be fixed to the wall using screws in the range 5mm to 6mm diameter (No.10 to No.12). The screw length should be chosen to give a minimum of 25mm (1 in) engaged thread. (figure 28)

Hold the template provided against the wall in the desired position and use a spirit level to line it up properly. The outside dimensions of the template correspond to the rear of the cabinet. Note especially that the centre of the wall plate does not coincide with the centre line of the speaker.

Mark the fixing holes on the wall and drill and plug the wall.

Ensure that the screw length and wall plug security are sufficient to hold the weight of the speaker. When fixing to drywall construction, try to arrange for the screws to go into a stud. B&W can accept no liability for any failure of wall or ceiling fixings.

Screw the wall plate D to the wall and test the firmness.

Part screw two of the supplied machine screws into the upper two threaded inserts in the back of the cabinet.

Offer the speaker up to the speaker plate E, locating the two screw projecting from the back of the speaker into the slots at the top of the plate.

Fit the remaining two machine screws through the plate E into the lower

threaded inserts in the cabinet and tighten all four.

Set the vertical angle of the speaker by adjusting screw B.

Fully tighten screw A.

Adjust screws C so that the friction of the three vertical hinges allows you to adjust the bracket but hold it in place once set.

Connect the speakers as described in section 4 before continuing.

Set the required horizontal angle and push the speaker back to the wall, but leave a little clearance to avoid rattles.

→ Go to section 4.

3.7 DS8S

The speakers may be fixed to a wall or ceiling using screws in the range 5mm to 6mm diameter (No.10 to No.12).

On the back of the cabinet are three wall plates. The screw head should be inserted into the round part of the aperture and slid fully along one of the slots. The slots are sprung loaded to prevent the speaker being readily knocked out of position. The screw length should be chosen to give a minimum of 25mm (1 in) engaged thread. (figure 28)

Ensure, especially when fixing to drywall panels, that the screw length and wall plug security are sufficient to hold the weight of the speaker. B&W can accept no liability for any failure of wall or ceiling fixings.

Use the template provided to mark the screw positions. The outside dimensions of the template correspond to the rear of the cabinet.

Stick 4 of the clear self-adhesive rubber pads to the rear panel of each speaker, one close to each corner. These stop the speaker vibrating against the surface and help keep it in position. (figure 30)

Adjust the protrusion of the screws such that the rubber pads are a friction slide on the surface when the wall plates are hooked over the screw heads. (figure 31)

Always check and ensure that:

- All the screws slide right to the ends of the slots in the wall plates.
- Screw protrusion is adjusted so that the rubber pads provide enough friction to prevent the speakers sliding out of position.

→ Go to section 4.

All connections should be made with the equipment switched off.

The terminals accept a variety of cable terminations to suit most applications – 4mm banana plugs, 6mm and 8mm (1/4 in and 5/16 in) spades, or bare wires up to 6mm (1/4 in) diameter.

Important safety notice

In certain countries, notably those in Europe, the use of 4mm banana plugs is considered a potential safety hazard, because they may be inserted into the holes of unshuttered mains supply sockets. In order to comply with European CENELEC safety regulations, the 4mm holes in the ends of the terminals are blocked by plastic pins. If you are using the products in any country where these conditions apply, you should ensure that any banana plugs cannot be used in an unsafe manner by children or other uninformed persons.

Ensure each positive terminal on the speaker (coloured red and marked +) is connected to the positive output terminal of the amplifier and negative (coloured black and marked -) to negative. Incorrect connection may result in impairment of frequency response, poor imaging and loss of bass.

Always screw the terminal caps down fully to prevent rattles.

Model	→ Go to
DS8S	4.3
All other models	Continue

All models in the range except for the DS8S may be bi-wired or bi-amplified. In 3-way systems, one set of terminals feeds the bass drivers and the other the midrange and tweeter. In 2-way systems, one set of terminals feeds the bass/midrange driver and the other the tweeter.

Separation of the signal paths to each section of the speaker can improve imaging and the resolution of low-level detail, and allows the user to optimise the cable to the frequency range of use.

Bi-wiring involves the use of two separate 2-core cables from the same amplifier, one to each pair of terminals. This is the minimum we would recommend, but should you prefer to single wire, perhaps during the initial set-up procedure or because you do not want to see a multitude of cables in the room, you must connect both positive and both negative speaker terminals together.

The ear is at its most sensitive in the midrange, so we recommend that, when single wiring, you connect the cable from the amplifier to the terminals that directly feed the midrange driver.

Bi-amplification goes a stage further and involves the use of two separate power amplifier channels for each speaker. It is not the same as having a fully active system, because the speaker's internal passive crossover is still used.

If using bi-amplification, ensure that each amplifier channel has the same gain, otherwise you will change the balance of the speaker. Check the absolute polarity. Some amplifiers invert the signal, and a mixture of different types may cause a dip in the overall response. If you have a mixture of inverting and non-inverting amplifiers, reverse the polarity of the connections from any inverting amplifier to the speaker.

Bear in mind that, even though midrange and, even more so, tweeter drivers can (and only need to) handle less continuous power than bass drivers, the amplifier feeding them needs to have an adequate voltage swing in order to supply the short-term high-frequency peaks in music without distortion. A high voltage capability implies high power, so it is not particularly desirable to have a lower powered amplifier feeding the midrange and tweeter than is used for bass drivers.

Model	→ Go to
800D	4.2
All other models (not DS8S)	Continue

On delivery, the two pairs of terminals are electrically separate from one another ready for bi-wiring. (figure 32)

For single wiring, short cables are provided to link both positive and both negative terminals together. Each cable carries a spade connector at one end and a 4mm banana plug at the other.

When single wiring, connect the cable from the amplifier to the lower terminals on 2-way systems (805S, HTM4S, SCMS) and the upper terminals on 3-way systems.

On these terminals, use the opposite type of connector on the link cables to what you have terminating your main cable. For example, if your main cable terminates in spade connectors or bare wires, use the banana plug end of the link cables in the same terminals. (figure 33)

→ Go to section 5.

On delivery, both positive and both negative terminals are connected together by link plates.

When single wiring, leave these links in position and connect the cable from the amplifier to the centremost pair of terminals. (figure 34)

When bi-wiring or bi-amplifying, remove the links after loosening the lower, larger diameter terminal caps. (figure 35)

The 4mm hole in the end of the terminal post features a collet that may be tightened around a banana plug using the upper, smaller diameter terminal cap.

→ Go to section 5.

In addition to the normal speaker terminals, there is an additional pair of screw terminals to operate an internal 12V relay that switches the speaker between monopole and dipole modes from a remote trigger. (figure 36)

You cannot use this facility if:

- Your processor does not feature a 12V trigger at all.
- Your processor only offers a simple trigger that outputs a 12V signal when the unit is switched on. This can only be used to switch other equipment on and off at the same time.

Some of the most expensive processors allow you to assign a trigger to the type of programme being played. They recognise information on the disc that distinguishes between movies and multi-channel music. Others allow you to assign triggers to different inputs; so if, for example, you use a multi-channel SACD or DVD-A player for music and a separate DVD player for movies, you can set up a trigger accordingly.

The relay in the speaker needs a certain amount of current to operate, so check the specification of your processor first before proceeding. You will need to draw 45mA for each speaker you want to switch.

The relay in the speaker only works when the manual switch is set to the monopole (●) position. If there is no voltage to the trigger input, the speaker stays monopole. If a 12V DC signal is present, the relay overrides the manual monopole setting and switches the speaker to dipole mode. If you have the switch set to the dipole (●●) position, the trigger feature will not work.

→ Continue to section 5.

Before fine tuning, double check that all the connections in the installation are correct and secure.

Floor- and stand-mount speakers only

Moving the speakers further from the walls will reduce the general level of bass. Space behind the speakers also helps to create an impression of depth. Conversely, moving the speakers closer to the walls will increase the level of bass.

803D, 803S, 804S, 805S, HTM1D, HTM2D, HTM4S, SCMS only

These vented-box systems are supplied with foam plugs fitted in the ports. Normally, the speakers should be used with these plugs removed for maximum bass output, but if the bass is too heavy due to room effects and you cannot move the speakers further from the walls, refit the plugs to reduce the bass output. (figure 37)

If the bass is uneven with frequency, it is usually due to the excitation of resonance modes in the room

Even small changes in the position of the speakers or the listeners can have a profound effect on how these resonances affect the sound. Try positioning the speakers along a different wall. Even moving large pieces of furniture can have an effect.

For the most discerning listening, remove bass and midrange grilles as described in section 8 – Aftercare.



Tweeter diaphragms are very delicate and easily damaged. The tweeter grilles are held in place with magnetism and any mishandling of the grille close to the tweeter may result in the grille being attracted into the tweeter diaphragm. For these reasons, we recommend that you leave tweeter grilles in place.

800D, 801D, 802D, HTM1D only

If you use these systems without the midrange grille, replace the plastic centre plug of the midrange drive unit with the solid aluminium plug in the accessory pack. Simply unscrew the fitted plug and screw in the replacement. Hand tighten only. (figure 38)

If the sound is too harsh, increase the amount of soft furnishing in the room (for example, use heavier curtains), or reduce it if the sound is dull and lifeless.

Test for flutter echoes by clapping your hands and listening for rapid repetitions. Reduce them by the use of irregular

shaped surfaces such as bookshelves and large pieces of furniture.

DS8S only

In monopole mode, the high-frequency output level may be adjusted using the top toggle switch on the front baffle. (figure 39)

In the centre 0 position, the system response is nominally flat. The + position gives more output, which may be required, for example, if the acoustic of the room is dull, if circumstances dictate that the speakers have to be placed more off line than recommended, or if the speaker is built into custom furniture and placed behind fabric that is more absorbent than that on the grilles supplied. Conversely, the – position reduces the level for when the room acoustic is too bright or if you want to reduce your awareness of the speakers' location.

Experiment to find the mode settings best suited to your requirements. Typical combinations are:

- All surround speakers monopole.
- Side speakers dipole, rear speakers monopole.
- All surround speakers dipole.

It would be unusual, but not impossible, to set side speakers to monopole and rear speakers to dipole.

The performance of the speaker will change subtly during the initial listening period. If the speaker has been stored in a cold environment, the damping compounds and suspension materials will take some time to recover their correct mechanical properties. The drive unit suspensions will also loosen up during the first hours of use. The time taken for the speaker to achieve its intended performance will vary depending on previous storage conditions and how it is used. As a guide, allow up to a week for the temperature effects to stabilise and 15 hours of average use for the mechanical parts to attain their intended design characteristics.

However, longer run-in periods (as long as a month) have been reported and there is evidence to suggest that this has little to do with the speaker changing and more to do with the listener getting used to a new sound. It is especially so with highly revealing speakers such as these, where there may be a significant increase in the amount of detail portrayed compared to what the listener has previously been used to; the sound may

at first appear too "up front" and perhaps a little hard. After an extended period of time, the sound will seem to mellow, but without losing clarity and detail.

Speakers of this ability deserve signals of the highest quality. Choose your electronic equipment and interconnecting cables with care. We can give guidance on what to look for when choosing ancillary equipment, but cannot recommend specific items. The standards of such products are improving all the time and your dealer will be able to demonstrate a variety of suitable up-to-date products.

In the specification we recommend a range of amplifier powers. The higher figure is defined by the power handling capability of the speaker. When calculating the power handling, it is assumed that the amplifier is not run into clipping, which distorts the frequency power spectrum of the signal, and that the signal is normal programme material. Test tones from oscillators and the like are not applicable. The lower figure is the minimum we consider necessary to achieve reasonable listening levels without audible distortion in the smaller room (less than 60 m³ or 2000 cu ft). The higher the power you use, the less likely you are to experience amplifier clipping.

You can often tell how good an amplifier is at driving complex speaker loads by looking at its power rating into both 4Ω and 8Ω loads. The nearer the ratio is to 2:1 the better, as it indicates a good current capability.

In order to reduce the effect the cable has on the frequency response of the speaker to inaudible levels, the impedance of the cable at all frequencies (measuring both positive and negative conductors in series) should be kept as low as possible and certainly below 0.1Ω. At low frequencies, the DC resistance of the cable is the dominant factor and you should choose a gauge of wire sufficient to achieve the impedance requirements over the length of cable you need to use. At mid and high frequencies the inductive component of the impedance can dominate the DC resistance. This and other properties influenced by the detailed construction of the cable become important. Ask your dealer for advice on the best cable for your needs.

Veneered cabinet surfaces usually only require dusting. If you wish to use an aerosol cleaner, remove grilles first by

gripping round the edges and gently pulling them away from the cabinet. Spray onto the cleaning cloth, not directly onto the cabinet. The grille fabric may be cleaned with a normal clothes brush whilst the grille is detached from the cabinet.

When replacing grilles, ensure that the pegs are correctly aligned with the receptacles in the cabinet before pushing into place.

800D, 801D, 802D, HTM1D only

To replace the midrange grille, locate the central peg in the hole at the tip of the plastic centre plug fitted to the drive unit. Push the centre of the grille firmly, but do not force a misaligned peg as damage may result. The outer rim of the grille is held in place by spring tension in the spokes of the grille fret.

The painted surfaces of midrange heads and tweeter housings will benefit from the use of antistatic cleaner.

Avoid touching the drive unit diaphragms, especially the tweeter, as damage may result.

Due to the delicate nature of tweeter domes, we strongly recommend that you do not attempt to remove tweeter grilles.

Français

Garantie limitée

Cher consommateur

Bienvenue chez B&W

Ce produit a été conçu et réalisé suivant les standards les plus élevés.

Cependant, si quelque chose ne fonctionnait pas convenablement, B&W Loudspeakers et ses distributeurs garantissent sa remise en état gratuite (hors cas d'exclusion) tant pour les pièces que pour la main d'oeuvre.

Cette garantie est limitée à une période de cinq ans à partir de la date d'achat. Cette période est de deux ans pour les électroniques, y compris les enceintes amplifiées.

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Mode d'emploi

Introduction

Merci d'avoir choisi B&W.

Chez B&W, nous suivons toujours les principes philosophiques d'association de l'art et de la science de l'acoustique que John Bowers appliquait pour créer tout simplement des produits toujours meilleurs, notre objectif étant de vous apporter le maximum de plaisir à l'écoute de la musique ou lorsque vous regardez un film.

La série Nautilus 800 originelle comportait de nombreuses avancées technologiques qui en firent la gamme d'enceinte de prestige vraisemblablement la plus vendue au monde.

Depuis ce temps, notre équipe d'ingénieurs en recherches et développements a travaillé d'arrache-pied pour repousser les limites encore plus loin. Voici donc un petit résumé de ce que vous découvrirez en terme de nouveautés

Les cônes des haut-parleurs de grave font appel à une nouvelle structure sandwich, composée de peaux de fibre de carbone et de Rohacell, une mousse synthétique. Les diaphragmes rigides